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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

YANG, RYAN R

ART UNIT PAPER NUMBER

2672

DATE MAILED: 12/17/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/864,128

Applicant(s)

VAN LIERE, FILIPS

Examiner

Ryan R Yang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This action is responsive to communications: Amendment, filed on 6/30/2003.

This action is final.

2. Claims 1-13 are pending in this application. Claims 1, 7 and 13 are independent claims. In the Amendment, filed on 6/30/2003, claims 1, 6-7 and 12-13 were amended,.

3. This application claims foreign priority dated 5/24/2000.

4. The present title of the invention is "Method and apparatus for shorthand processing of medical image, wherein mouse positionings and/or actuations will immediately control inherent image processing functions, and a pertinent computer program" as filed originally.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 3-5, 7, 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chekerylla (6,084,598).

As per claim 1, Chekerylla discloses a method for providing and processing a cursored user interaction with a spatially displayed medical image and performing image processing on said medical image, said method comprises the steps of:

providing a menu-less graphical interface having a plurality of sensitive areas positioned at predetermined relative positions with respected to an associated medical

image display field (Figure 2 is a layout of user controls from mouse operations, "The application does not display menus but rather, displays all user controls as buttons drawn on the display", column 9, line 51-63); and

controlling a mouse configured such that positionings and/or actuations of said mouse within said plurality of sensitive areas allows activation and control of a plurality of inherent processing functionalities respectively associated with each of said plurality of sensitive areas (Figure 2 is a layout of user controls from mouse operations, and the action is mouse activated by placing the cursor over the buttons where the button is the sensitive area, column 9, line 51-63).

As for medical image display field, since medical image is a genre of image, it would have been obvious to one of ordinary skill in the art to extend the application to medical image in order to easily manipulate a medical image.

7. As per claim 3, Chekerylla demonstrated all the elements as applied to the rejection of independent claim 1, supra, and further discloses selecting image mirror or rotation transformations (Figure 5).

8. As per claim 4, Chekerylla demonstrated all the elements as applied to the rejection of independent claim 1, supra, and further discloses selecting image zoom or pan transformations (Figure 2 209 and 210).

9. As per claim 5, Chekerylla demonstrated all the elements as applied to the rejection of independent claim 1, supra, and further discloses selecting shutter masking of the display field ("the computer program ... uses bitmap masks to apply the changes to an irregular section of the whole image", column 8, line 7-12).

10. As per claim 7, Chekerylla discloses an apparatus for providing and processing cursored user interactions with a spatially displayed medical image and for producing graphics related data on said medical image, said apparatus comprises:

menu-less graphical interface having a plurality of sensitive areas positioned at predetermined relative positions with respect to an associated medical image display field (Figure 2 is a layout of user controls from mouse operations, "The application does not display menus but rather, displays all user controls as buttons drawn on the display", column 9, line 51-63);

mouse configured such that positionings and/or actuations of said mouse within said plurality of sensitive areas allows activation and control of a plurality of inherent processing functionalities respectively associated with each of said plurality of sensitive areas (Figure 2 is a layout of user controls from mouse operations, column 9, line 51-63); and

display means dimensioned for displaying said medical image and said menu-less graphical interface (Figure 2).

11. As per claim 9, Chekerylla demonstrated all the elements as applied to the rejection of claim 7, supra, and further discloses having selection means for selecting image mirror or rotation transformations (Figure 5).

12. As per claim 10, Chekerylla demonstrated all the elements as applied to the rejection of claim 7, supra, and further discloses having selection means for selecting image zoom or pan transformations (Figure 2 209 and 210).

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13. As per claim 11, Chekerylla demonstrated all the elements as applied to the rejection of claim 7, supra, and further discloses having selection means for selecting edged shutter masking of the display field ("the computer program ... uses bitmap masks to apply the changes to an irregular section of the whole image", column 8, line 7-12).

14. As per claim 13, Chekerylla discloses a machine-readable computer program (column 4, line 31-33), said program being arranged for processing a cursored user interaction with a spatially displayed medical image and performing image processing on said medical image, said method comprises the steps of:

providing a menu-less graphical interface having a plurality of sensitive areas positioned at predetermined relative positions with respected to an associated medical image display field (Figure 2 is a layout of user controls from mouse operations, "The application does not display menus but rather, displays all user controls as buttons drawn on the display", column 9, line 51-63); and

controlling a mouse configured such that positionings and/or actuations of said mouse within said plurality of sensitive areas allows activation and control of a plurality of inherent processing functionalities respectively associated with each of said plurality of sensitive areas (Figure 2 is a layout of user controls from mouse operations, column 9, line 51-63); and

controlling outputting representations of said processing functionalities (Figure 2).

As for medical image display field, since medical image is a genre of image, it would have been obvious to one of ordinary skill in the art to extend the application to medical image in order to easily manipulate a medical image.

15. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chekerylla as applied to claim 1 above, and further in view of Motzer (6,301,512).

As per claim 2, Chekerylla demonstrated all the elements as applied to the rejection of independent claim 1, supra.

Chekerylla discloses a method of modifying graphic image through mouse actuation. It is noted that Chekerylla does not explicitly disclose the function of selecting grey range and/or color range windowing through geometrical mouse positioning, however, this is known in the art as taught by Motzer. Motzer discloses a graphical display system in which the color range of the image can be adjusted through mouse actuation (Figure 13C 392).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Motzer into Chekerylla because Chekerylla discloses a method of modifying graphical image through mouse actuation and Motzer discloses the color of the image can be adjusted in order to better understand the resulted image.

16. As per claim 8, Chekerylla demonstrated all the elements as applied to the rejection of claim 7, supra.

Chekerylla discloses an apparatus of modifying graphic image through mouse actuation. It is noted that Chekerylla does not explicitly disclose the function of selecting

grey range and/or color range windowing through geometrical mouse positioning, however, this is known in the art as taught by Motzer. Motzer discloses a graphical display system in which the color range of the image can be adjusted through mouse actuation (Figure 13C 392).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Motzer into Chekerylla because Chekerylla discloses an apparatus of modifying graphical image through mouse actuation and Motzer discloses the color of the image can be adjusted in order to better understand the resulted image.

17. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chekerylla as applied to claim 1 above, and further in view of Goldberg et al. (5,963,203).

As per claim 6, Chekerylla demonstrated all the elements as applied to the rejection of independent claim 1, supra.

Chekerylla discloses a method of modifying graphic image through mouse actuation. It is noted that Chekerylla does not explicitly disclose the function of selectably navigating through a sequence of images that base on marginal stepping with respect to an imaged object, however, this is known in the art as taught by Goldberg et al., hereinafter Goldberg. Goldberg discloses a method of viewing a sequence of image in which "selection of basic frames/objects for the root image, extractable objects and the like by stepping slowly through the video sequence and, for

example, using a mouse to place a cursor on frames or points of frames which are of interest", column 14, line 14-18.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Goldberg into Chekerylla because Chekerylla discloses a method of modifying graphic image through mouse actuation and Goldberg discloses a method of stepping a sequence of stored images in order to increase the viewing options of the images.

18. As per claim 12, Chekerylla and Goldberg demonstrated all the elements as applied to the rejection of claim 8, supra, Goldberg further discloses having navigation means for selectably navigating through a sequence of images that base on marginal stepping with respect to an imaged object (Figure 2).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Goldberg into Chekerylla because Chekerylla discloses a method of modifying graphic image through mouse actuation and Goldberg discloses a method of stepping a sequence of stored images in order to increase the viewing options of the images.

Response to Arguments

19. Applicant's arguments filed 6/30/2003 have been fully considered but they are not persuasive.

Applicant alleges Chekerylla does not teach a menu-less interface. In replay, examiner notes Chekerylla discloses the control area is menu-less (column 9, line 52).

As for the action is mouse activated by placing the cursor over the sensitive area, the feature is disclosed in column 9, line 53-54, where the button is the sensitive area. As for button-less interface element, this limitation is not part of the claim. Examiner also does not believe button-less is equivalent to menu-less.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Inquiries

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21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ryan Yang** whose telephone number is **(703) 308-6133**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi**, can be reached at **(703) 305-4713**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 305-47000377.

Ryan Yang
December 9, 2003



MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600